

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

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7590

12/02/2003

HUSCH & EPPENBERGER, LLC 401 Main Street, Suite 1400 Peoria, IL 61602

EXA	MINER
HARLAN	K, ROBERT D
ART UNIT	PAPER NUMBER

1713 DATE MAILED: 12/02/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,420	04/13/2001	Andreas Topp	64251-027	5918

TITLE OF INVENTION: COMPOSITE OF A VULCANIZABLE RUBBER COMPOSITION AND CURED RUBBER PRODUCT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
ponprovisional	NO	\$1330	\$300	\$1630	03/02/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when duc.



#### PART B - FEE(S) TRANSMITTAL



Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up-with any corrections or use Block 1)

7590

12/02/2003

**HUSCH & EPPENBERGER, LLC** 401 Main Street, Suite 1400 Peoria, IL 61602

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Pee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO. on the date indicated below. (Depositor's name) (Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,420	04/13/2001	Andreas Topp	64251-027	5918

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APPLN. TYPE	SMALL ENTITY	ISSUE FEI	E	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330		\$300	\$1630	03/02/2004
EXAM	IINER	ART UNIT	ſ	CLASS-SUBCLASS	]	
HARLAN,	ROBERT D	. 1713		428-467000		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  □ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  □ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			names of agents Ol firm (hav agent) an	nting on the patent front page, up to 3 registered patent a R, alternatively, (2) the name ing as a member a registered d the names of up to 2 regist or agents. If no name is lister inted.	ttorneys or 1 of a single attorney or 2 ered patent	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignce is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); individual a corporation or other private group entity 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fec(s) is enclosed. Dublication Fee Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this form). ☐ Advance Order - # of Copies Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Date) (Authorized Signature)

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 C.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents. Alexandria, Virginia 22313-1450. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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# UNITED STATES PATENT AND TRADEMARK OFFICE

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09/834,420	04/13/2001	Andreas Topp	64251-027	5918
75	90 12/02/2003		EXAM	INER
HUSCH & EPPE			HARLAN, F	ROBERT D
401 Main Street, Su Peoria, IL 61602	nte 1400		ART UNIT	PAPER NUMBER
			1713	<u> </u>

DATE MAILED: 12/02/2003

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 138 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 138 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



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09/834,420	04/13/2001	Andreas Topp	Andreas Topp 64251-027	
75	90 12/02/2003		EXAM	INER
HUSCH & EPPENBERGER, LLC		HARLAN, I	ROBERT D	
401 Main Street, Su Peoria, IL 61602	nte 1400		ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 12/02/2003

### Notice of Fee Increase on October 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2003. See Revision of Patent Fees for Fiscal Year 2004; Final Rule, 68 Fed. Reg. 41532, 41533, 41534 (July 14, 2003).

The current fee schedule is accessible from (http://www.uspto.gov/main/howtofees.htm).

If the fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due" but not the correct amount in view of the fee increase, a "Notice of Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice of Pay Balance of Issue Fee," if the response to the Notice of Allowance is to be filed on or after October 1, 2003 (or mailed with a certificate of mailing on or after October 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously-paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2003, 37 CFR 1.18 is amended by revising paragraphs (a) through (c) to read as set forth below.

Section 1.18 Patent post allowance (including issue) fees.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))......\$665.00 By other than a small entity......\$1,330.00

(b) Issue fee for issuing a design patent:

By other than a small entity.....\$480.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))......\$320.00

By other than a small entity......\$640.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

•	•		$\mathcal{O} \setminus$
	Application No.	Applicant(s)	
	09/834,420	TOPP ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Robert D. Harlan	1713	
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI	(OR REMAINS) CLOSED or other appropriate com IGHTS. This application is	D in this application. If not include munication will be mailed in due	ed course. <b>THIS</b>
1. This communication is responsive to <u>09/26/03</u> .			
2. 🗵 The allowed claim(s) is/are <u>1-5,9-14,18-21,24,26,28-36 an</u>	d 38-42.		
3. $igotimes$ The drawings filed on <u>13 April 2001</u> are accepted by the Ex	xaminer.		
<ol> <li>Acknowledgment is made of a claim for foreign priority ur</li> <li>a)    ☐ All b) ☐ Some* c) ☐ None of the:</li> </ol>	nder 35 U.S.C. § 119(a)-(	d) or (f).	
1.   Certified copies of the priority documents have	been received.		
2. Certified copies of the priority documents have	been received in Applica	ation No	•
<ol> <li>Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> </ol>	cuments have been recei	ved in this national stage applica	tion from the
* Certified copies not received:			
<ol> <li>Acknowledgment is made of a claim for domestic priority u reference was included in the first sentence of the specifica</li> </ol>			e a specific
(a) The translation of the foreign language provisional a	• •	•	
<ol> <li>Acknowledgment is made of a claim for domestic priority u in the first sentence of the specification or in an Application</li> </ol>			ce was included
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of			
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>			IOTICE OF
<ul> <li>8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must</li> <li>(a) ☐ including changes required by the Notice of Draftspers</li> <li>1) ☐ hereto or 2) ☐ to Paper No</li> </ul>	son's Patent Drawing Rev	·	
(b) including changes required by the proposed drawing of			
(c) ☐ including changes required by the attached Examiner'	s Amendment / Commen	t of in the Office action of Paper i	NO
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			back) of
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT FOR T</li> </ol>			Note the
Attachment(s)			
1☐ Notice of References Cited (PTO-892)	5☐ Notice of	Informal Patent Application (PTO	-152)
2☐ Notice of Draftperson's Patent Drawing Review (PTO-948)	6☐ Interview	Summary (PTO-413), Paper No.	·
3 Information Disclosure Statements (PTO-1449 or PTO/SB/08 Paper No	3), 7□ Examiner	's Amendment/Comment	
4 Examiner's Comment Regarding Requirement for Deposit of Biological Material	8⊠ Examiner 9⊡ Other	's Statement of Reasons for Allow .	vance
	<i>,</i>	Robert D. Harlan Primary Examiner Art Unit: 1713	

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#### DETAILED ACTION

- 1. The Amendment filed by Applicant on 09/26/03 has been entered.
- 2. Claims 6-9, 15-17, 23 and 37 have been canceled.

# Response to Amendment/Arguments

- 3. Applicant's amendment and arguments filed on 09/26/03 have been fully considered and they are found persuasive.
- 4. The rejection of claims under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn.
- 5. The rejection of claims 1-5, 9-14, 18-21 and 24 under 35 U.S.C. 102(a) as being anticipated by Roseboom et al., U.S. Patent No. 5,882,799 (hereinafter "Roseboom") withdrawn.

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# Allowable Subject Matter/Reasons for Allowance

- 6. Claims 1-5, 9-14, 18-21, 24, 26, 28-36 and 38-42 are allowed.
- The following is an examiner's statement of reasons for 7. allowance: The closest prior art located or identified by the Examiner is Roseboom. Roseboom teaches polymeric coupling agents acting as adhesive which incorporate within their structures polymer backbones, and, bonded to the backbone as pendant groups, co-vulcanizable groups and chelating groups. See Roseboom, col. 1, lines 7-12. The coupling agents can be applied in solvents such as water, ethanol (organic). See Roseboom, col. 1, lines 50-67. The chelating groups bonded to the polymeric backbone of the coupling agent include amines and the co-vulcanizable groups include alkenyl groups and epoxide groups. See Roseboom, col. 3, line 25 through col. 4, line 30. In Example 2, Roseboom describe adhesion-testing procedures that involves vulcanization, which like create a layer of skim. Further in Table 7 and Example 5, Roseboom discloses the use of stainless steel alloy and EPMD rubber. With respect to the adhesion promoter of the claimed invention, Roseboom polymeric coupling agents serve as adhesive promoter and are species of

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general formula (I). Roseboom differs from the claimed invention in that the claimed invention the organometallic group of the claimed invention.

- 8. As of the date of this Notice of Allowability, the Examiner has not located or identified any reference that can be used singularly or in combination with another reference including Roseboom to render the present invention anticipated or obvious to one of ordinary skill in the art.
- 9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (703) 306-5926. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

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Art Unit: 1713

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9559 for regular communications and (703) 872-9559 for After Final communications.

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

Robert D. Harlan Primary Examiner Art Unit 1713

rdh December 1, 2003